

SHORT REPORT

**THE UNDER PORTRAYAL OF ELECTROCONVULSIVE  
THERAPY (ECT) PROCEDURE IN THE ASIAN MEDIA**

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**Abstract**

**Objective:** Mental health is often stigmatized in Asia, and electroconvulsive therapy (ECT) is portrayed negatively in the media. The objective of this short report is to obtain an insight on Asian countries' perception on Electroconvulsive Therapy, mainly through the media. **Methods:** Several online movie databases were searched, with emphasis on Asian movies' portrayal of Electroconvulsive Therapy. **Results:** Electroconvulsive Therapy (ECT) was portrayed in 9 television programme, 4 in films and 2 on Youtube. All patients (15) had no proper information given on possible side effects and consent not taken in all of them. 5 patients (33%) were tortured via ECT, 3(20%) of them had, ECT for Schizophrenia. In all scenes (15/15, 100%) ECT were given without general anaesthesia and the patients were fully awake. Basic monitoring (2/15, 13%) was performed, and all patients had no oxygenation. Tonic Clonic seizures were visible because all patients received no muscle relaxant. Bilateral electrode's placements (13/15, 87%) were common. One (6.6%) patient had a trilateral electrode placement. Most patients (9/15, 60%) received one shock, 4 patients (27%) received 2 shocks. One patient (6.6%) received 3 and 1 patient (6.6%) 4 shocks. 100% of patients were in obvious discomfort and ECT was portrayed as barbaric. There was no death depicted post ECT. **Conclusion:** ECT is under portrayed in the Asian media. Only the Indian and Pakistani medium broached the subject. In the majority of the scenes, ECT was portrayed negatively. This shows a total lack of knowledge of ECT among the Asian population. Alarmingly, ECT was used as a torture device in 5 mediums. This only adds to the stigma of ECT in Asia. More needs to be done to correct the misconceptions of ECT in Asia. *ASEAN Journal of Psychiatry, Vol. 18 (2): July – December 2017: XX XX.*

**Keywords:** Portrayal, ECT, Asian Media

**Introduction**

**History**

When Laszlo Meduna, then a 38 year old Hungarian Psychiatrist administered 10ml of oily solution containing 20% camphor to 5 patients with Schizophrenia in 1934, he

birthed convulsive therapy as a physical treatment for Schizophrenia. Two patients then had a therapeutic effect, although there was no direct evidence that their subsequent therapeutic responses were due to the convulsive therapy, Meduna was unperturbed. One of his mentors was a strong opponent of this avenue of treatment and regarded it as

implausible. Because Camphor was associated with a number of adverse effects such as pain on the injection site, abscesses and nausea, Meduna switched to pentamethylenetrazol [1]. Initial results were favourable and treatment units sprung up before the Second World War.

However, Meduna's convulsive treatment was eventually sidelined when an Italian Psychiatry Professor Ugo Cerletti and his assistance Lucio Bini developed convulsions by directly applying electricity to the brain. They also selected patients with Schizophrenia for their trials, and the trials were overwhelmingly successful. It was truly a significant moment in Psychiatry, one that caused quite a stir. This development gained traction in the United States, and Electroconvulsive therapy quickly became popular worldwide. By the 1950s Electroconvulsive therapy (ECT) became one of the standard treatments for hospital depression [2].

Throughout the years, Electroconvulsive therapy was steadily modified. From the introduction of muscle relaxants to unilateral or bilateral placement of electrodes, it flourished. Alas nowadays, ECT is demonised as something barbaric. This is most likely due to the extremely negative portrayal of ECT in the media. If you ask any to lay person regarding, ECT the answers would almost be uniform; ECT is akin to torture. This misinformation has been ingrained through the incorrect portrayal of ECT in the media as something that is ineffective and inhumane.

ECT in the media has been discussed a few times before. Garry Walter and Andrew McDonald touched on the misinformation given among Hollywood films in regard to psychiatry and especially ECTs [3]. Charles H. Kellner in his article written in 2008 [4], found that the attitude towards ECTs was favourable. However, the medium whom he explored on was not entirely mainstream, and this was a pity. In this short report, we highlighted the actual technical portrayals of ECTs in the media; mainly in films and television. The methodology will be discussed further, but it is only apt to explain, ECT briefly first.

### ***Mechanism of Action***

The exact mechanism of action of ECT is still unclear. The stimulus dose needed must be just large enough to induce a seizure, of which the activation of the whole brain is necessary to produce a therapeutic effect. Repeated ECTs showed slower waves on electroencephalogram (EEG), a change observed for about a month post ECT. ECT-induced changes in various neurotransmitter systems have also been reported. The neurochemical transmitters involved are Serotonin (5-hydroxytryptamine, 5-HT), Glutamate, gamma-aminobutyric acid, noradrenaline and dopamine [5].

Some studies have also shown increase neural growth post ECT and immune system modulation. Perhaps we will never fully understand ECT in our lifetime but this should not negate the use of ECT in our practice.

### ***Indications and Contraindications***

The National Institute for Health and Care Excellence (NICE) [6] guideline recommended ECT to be used in order to achieve a rapid and short term improvement in severe symptoms after adequate alternative treatments proved ineffective or when the condition is potentially life threatening, in individuals with: (i) catatonia, (ii) prolonged or severe mania, (iii) severe depression; life threatening or refractory to treatment [7].

The Royal College of Psychiatrist England published a guideline on ECT in 2013. ECT has been shown to be the most beneficial treatment for severe depression. It is used as a fourth line treatment in severe depression that is refractory to treatment[7]. This is when in spite of adequate trials of antidepressant, the patient still does not exhibit any therapeutic effects from it. Patients who had undergone, ECT and had a good therapeutic effect are most likely to benefit from it if they experience the relapse in their depression. It is also offered in patients who have had severe side effects from antidepressants and further treatment with medications are not recommended. Patients who have severe depression who do not drink or eat enough

would warrant treatment with ECT. This also applies to patients with severe depression with serious risk of suicide. There are some researches in the use of ECT in Parkinson's Disease and in patients who suffer from side effects of some psychotropics [8].

Absolute contraindication for ECT is pheochromocytoma, because of the likely large effect of ECT on cerebral blood flow and intracranial pressure. Relative contraindications are few and do not lead to the prohibition of the use of ECT [8]. It is still safe to perform ECT on patients with a raised intracranial pressure if there is no mass effect. This also applies to patients with brain tumours.

Recent stroke does not preclude patients from receiving ECT. It is still safe to conduct ECT on patients with cardiac conduction defects; even on the ones with a pacemaker. Obstetrics consults, and fetal monitoring is recommended for patients with high-risk pregnancy who would benefit from ECT. Having an aortic or cerebral aneurysm is a relative contraindication to having ECT. In asthmatic patients on Theophylline, additional care must be taken. This is because the potential of causing a prolonged seizure which could lead to status epilepticus.

### **Benefits**

The likely beneficial effect of ECT is much more rapid than medications. In certain instances, ECT is indicated where drug treatment fails (treatment resistant depression). Rarely, a single treatment would not be effective; 6-12 courses of ECTs are the norm for treatment resistant depression. Catatonia usually resolves after 3-5 treatments, whereas mania and treatment resistant psychosis usually needing multiple courses (up to 20 treatments). A few patients would need additional treatments during the 6-month period in order to prevent relapse. There is no recommendation from NICE guideline in maintenance ECT, some college bodies do accept that as per case by case basis, some will need maintenance treatment [9].

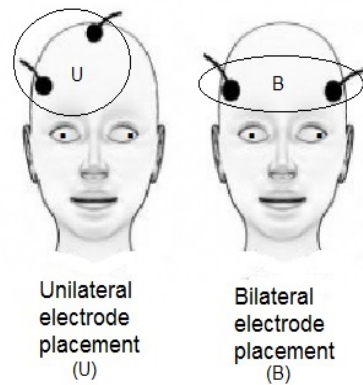
### **Risks**

The risk in ECT is primarily due to the General Anaesthesia risk, as any other patients having a procedure under anaesthesia. The risk of death is 1 in 100,000. The most common side effects of having ECT are muscle pain, nausea, headache, weakness and confusion. Temporary short term memory loss has been documented in various studies. However this is hotly debated because some psychiatric disorders do have an effect on cognitive functioning [8].

### **ECT Procedure**

As per the NICE guideline, adequate informations should always be given and consent taken appropriately. Consent must be gained without coercion and the patient reserve the right to reconsider their decision to accept treatment. This applies to individuals who agree to the treatment on a voluntary basis. In circumstances where patients are unable to give consent and treatment is deemed necessary, they would received ECT as an involuntary patient. Different countries have different Mental Health Act governing this situation.

Generally, the patients will be brought from the pre-op room to the main procedure room, where they would be attached to a monitor and receive oxygen. An Intravenous cannula will be inserted before the induction of patients for general anaesthesia. A muscle relaxant would be given before the actual electrical stimulus. The electrode placements depend on the treating psychiatrist, either unilateral or bilateral. Because of the muscle relaxant, the only observable muscle twitches would be minimal. Most often an EEG recording will demonstrate the convulsion. Afterwards, the patient will be nursed in the recovery room and most often discharged on the same day. Frequently, patients will undergo between 6-9 ECT sessions about twice a week. They will have to continue taking their psychotropics because of the beneficial effect of medications in continuing the benefits of ECT. The placements of electrodes have bearings on the efficacy and also on the possible side effects [10].



**Unilateral placement;** one electrode positioned on the temporal area on the right side (d'Elia placement). The centre of the other electrode placed 2–3 cm to the right of the vertex of the skull [11].

**Bilateral placement;** bifrontal, in which the centre of each electrode is placed 4–5 cm above the outer canthus of the eye along a vertical line perpendicular to a line connecting the pupils. Bitemporal, in which the centre of the stimulus electrodes are applied 2–3 cm above the midpoint of the line connecting the outer canthus of the eye and the external auditory meatus on each side of the individual's head [11]

When bilateral ECT is used, it leads to a greater proportion of patients with cognitive dysfunction. The most common complaint would be short term memory impairment, however there were case reports that documented long term memory impairment. Bilateral ECT leads to a quicker reduction in symptoms compared to unilateral ECT.

## Methods

We targeted Asian based films and television programmes with psychiatric narrative. The films and Television programmes were then filtered further accordingly. A study pro forma was design and used during the data collection. The exact ECT procedures were documented using the study Proforma. We looked at the ECT procedure portrayal in detail from the pre procedural stage(information giving/consent), during the procedure and post procedure(adverse events).

The films and television were searched using standard Internet search engine. The

corresponding ECT scenes were documented using the study pro forma. No statistical package was used to analyse the data. All media contain subtitles, the ones which do not were excluded.

## Results

The data originated mostly from South Asia, mainly from Indian and Pakistani media. About 15 ECT scenes in total. A total of 4 (27%) were from films and 2(13%) were from Youtube. Most of the bulk of the scenes were derived from television[9(60%)].

Pre ECT there was 1 (6.7%) case where ECT was explained in detail to the patient. About 14(93%) patients did not receive any adequate information regarding ECT. The possible adverse effects were not discussed at all in 15(100%) cases pre ECT. The indications for ECT were unclear in 9(60%), 3(20%) were use for possible Schizophrenia. The motive was entirely vindictive. There was one scene where the doctor was shown to receive private payment for performing ECT on a patient; implying that the doctor had an ulterior motive in performing the procedure. 13(87%) of patients received ECT unwillingly and was restrained either by a physical or chemical manner.

100% (15) of all patients did not receive any kind of sedation or general anaesthesia. All of them were awake [15(100%)] during the procedure. None of the patients received any Oxygen before or during the procedure. 2(13%) had a heart tracing monitoring whereas the rest did not [13(87%)].

As the resulting effect of no administration of muscle relaxant [15(100%)], all patients had a

visible and quite graphic tonic clonic seizure [15(100%)]. 13(87%) had bilateral electrode placement and 1(6.6%) had no electrodes placed at all. One patient (6.6%) actually had a trilateral electrode placement, something the authors had never seen previously. As ECTs were depicted as something inhumane in all of the cases (100%), this is quite concerning. All of the patients [15(100%)] were in some kind of pain or discomfort. Post procedure, 14 cases(93%) did not exhibit any apparent side effects. One (7%) suffered from temporary confusion.

Alarmingly about 5(33%) patients were tortured using ECT. This is a total disregard of the Hippocratic Oath which states Do No Harm. There were no recorded deaths during or after ECT in all the patients [15(100%)].

### **Discussion**

It is quite shocking that ECT is not depicted or discussed much in the Asian media. It was mostly among Indian and Pakistani media where the data arose from. ECT does not seem to have much exposure in the Asian media. Is this a blessing or a curse? This is in stark contrast among the Western society where ECT is always depicted as something barbaric and the practice should be discontinued. Even among many psychiatric centres in Europe, the use of ECT is dwindling. The author could count with one hand how many ECTs were actually performed in the training centre where the author was attached previously.

This brings us to our second point of discussion: awareness of ECT as a physical treatment option among Asian population. If you ask any to lay person regarding ECT, how many will actually know what it is? Maybe this should be the next survey performed.

The depiction of ECTs in the media that were surveyed was a total misconception of the procedures. One which does the disservice to the patients whom some day might need the procedure. How terrified can a patient be if they looked up on the Internet and find this negative portrayal of ECT. Keep in mind all the media surveyed were easily accessed from the worldwide web. The most appalling thing about this survey is that ECT was something

the film producers thought was used to torture people with.

We as the experts need to take a more hands-on approach in educating the public regarding mental health. Stigma is a big factor that would prohibit any patients in accessing the mental health system. The film and television industries have always maintained a tight hold on society. Perhaps we should reach out and give consultations on these mediums in order to amplify our reach to society. We could provide on site consultations to these producers. In this way, we can educate and correct any misconceptions on psychiatry.

The growing trend in Europe is making it harder for clinicians to access ECT. Most often they will resort to multiple sequences of medications without considering ECT. This is not entirely their fault, this is an access issue. Some centres have an unused ECT suite because of the lack of funding to recruit staffs. Frequently, clinicians were informed to refer patients to a centre that is 4-5 hours drive in order to access ECT. The logistics and red tapes on this arrangement are sometimes prohibitive. This certainly will impact the future training in psychiatry and subsequent use of the service.

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